



U.S. Coast Guard Unmanned Systems



USCG Assistant Commandant for Capability
CAPT Thom Remmers (CG-7 UxS)

FL250



Long-Range UAS

- Wide area surveillance for the Area Commander
- Beyond Radio Line of Sight C2 link (SATCOM)
- Long endurance

5000'

Medium-Range UAS

- On demand support for the Tactical Commander
- Beyond Visual Line of Sight C2 link (Radio)
- Medium endurance



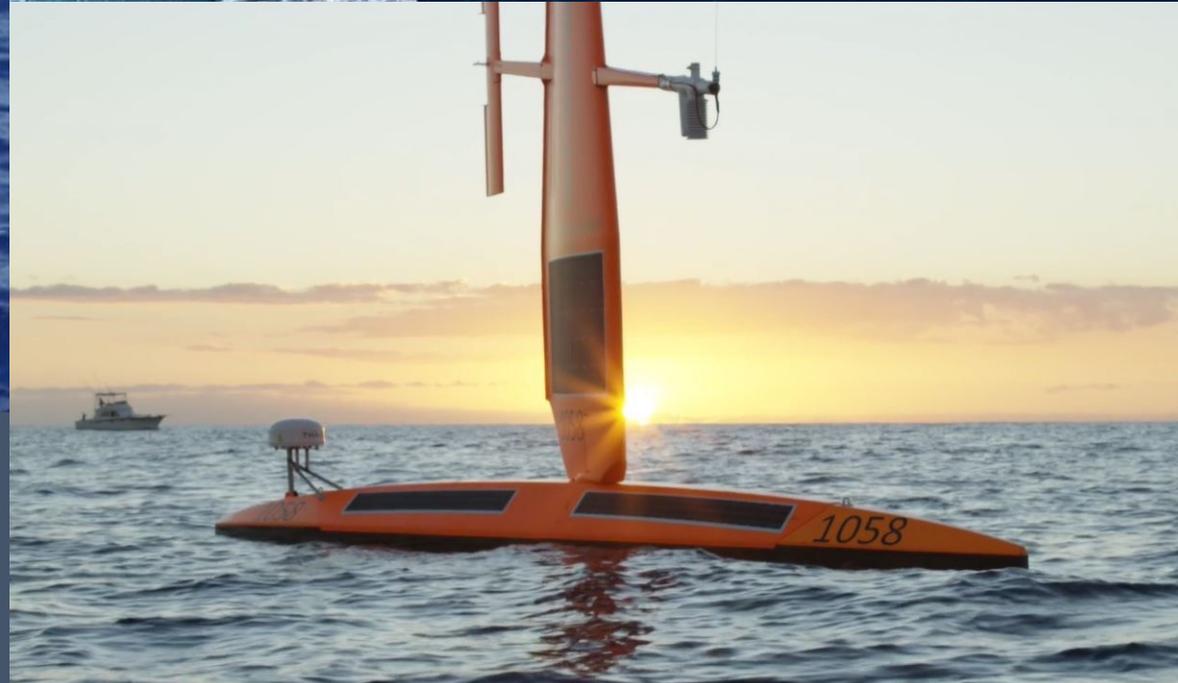
400'

Short-Range UAS

- Personal, portable system
- Visual Line of Sight C2 link (Radio/Wifi)
- Short endurance



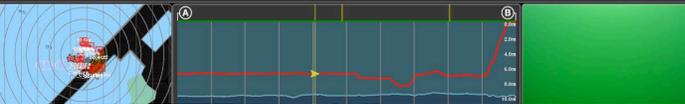
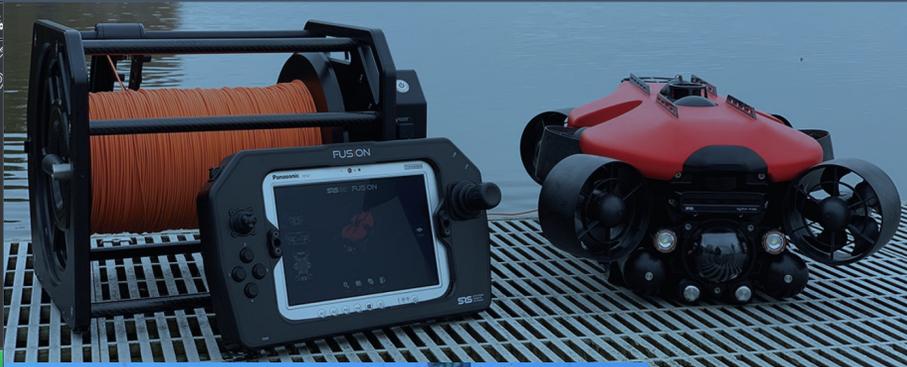
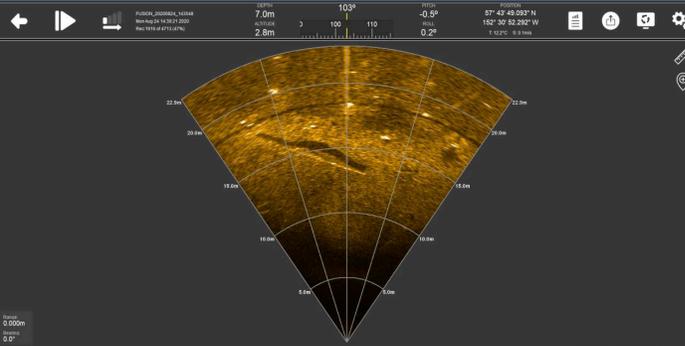
Unmanned Surface Vessels (USV)



United States Coast Guard

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for Capability

Unmanned Underwater Vehicles (UUV)

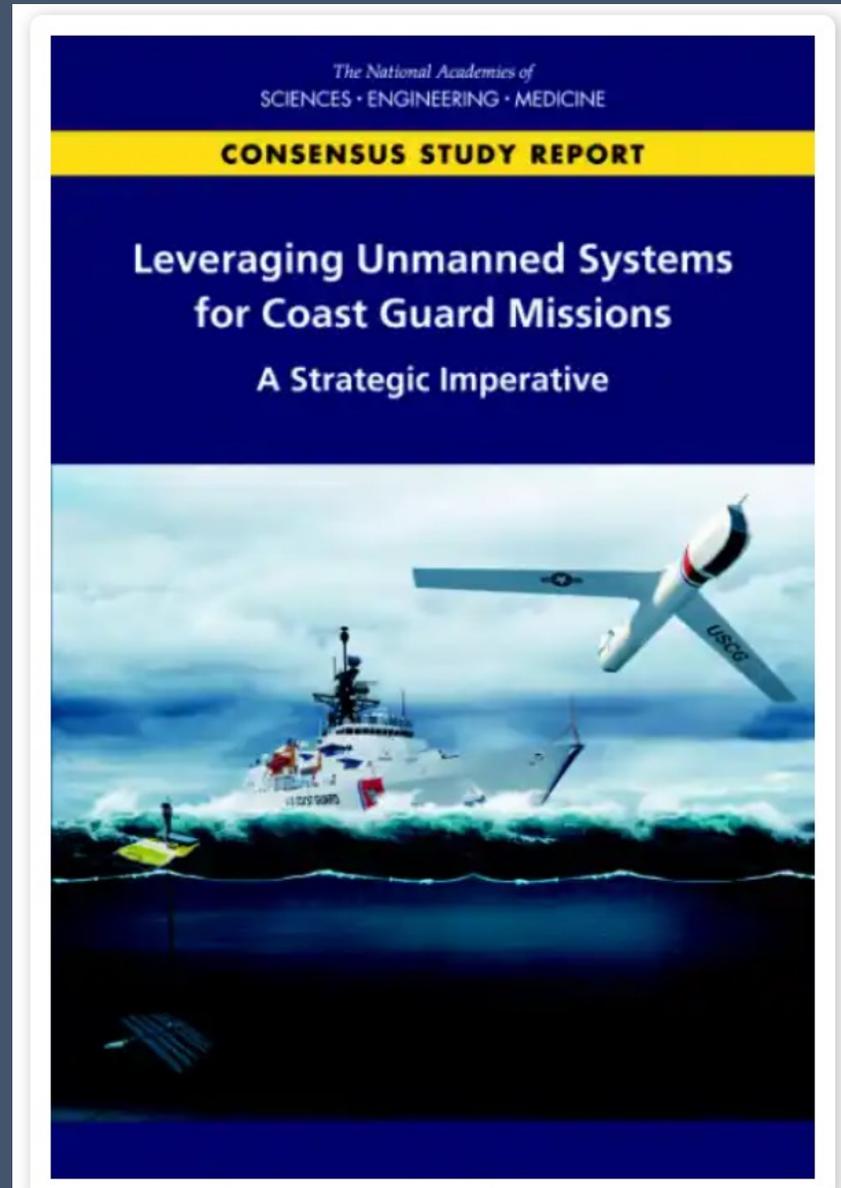


United States Coast Guard

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Why Unmanned Systems (UxS)?

1. Issue a high-level UxS strategy
2. Designate a top Coast Guard official to advance strategy
3. Establish a UxS program office
4. Expand and normalize efforts to ensure ample and systematic operations-related experimentation
5. Commission an internal study of the multi-year spending that will be required for UxS



An Unmanned Systems Strategy

- Lines of Effort:
 - Employ UxS as a means to fulfill Coast Guard mission requirements
 - Defend against threats posed from UxS (i.e. Counter- or C-UxS)
 - Establish the regulatory framework for safe, lawful employment of UxS in the Marine Transportation System
- Focus on the operational concepts, not any one technology

An Unmanned Systems Strategy

- We've experienced small-scale success with UxS, but the vision of a new ecosystem of vehicles, sensors, networks, and systems would fundamentally transform operations:
 - Fill capability and capacity gaps.
 - Automate and augment crewed missions to preserve readiness and improve situational awareness of manned systems when needed.
 - Conduct higher risk missions safer and more effectively.

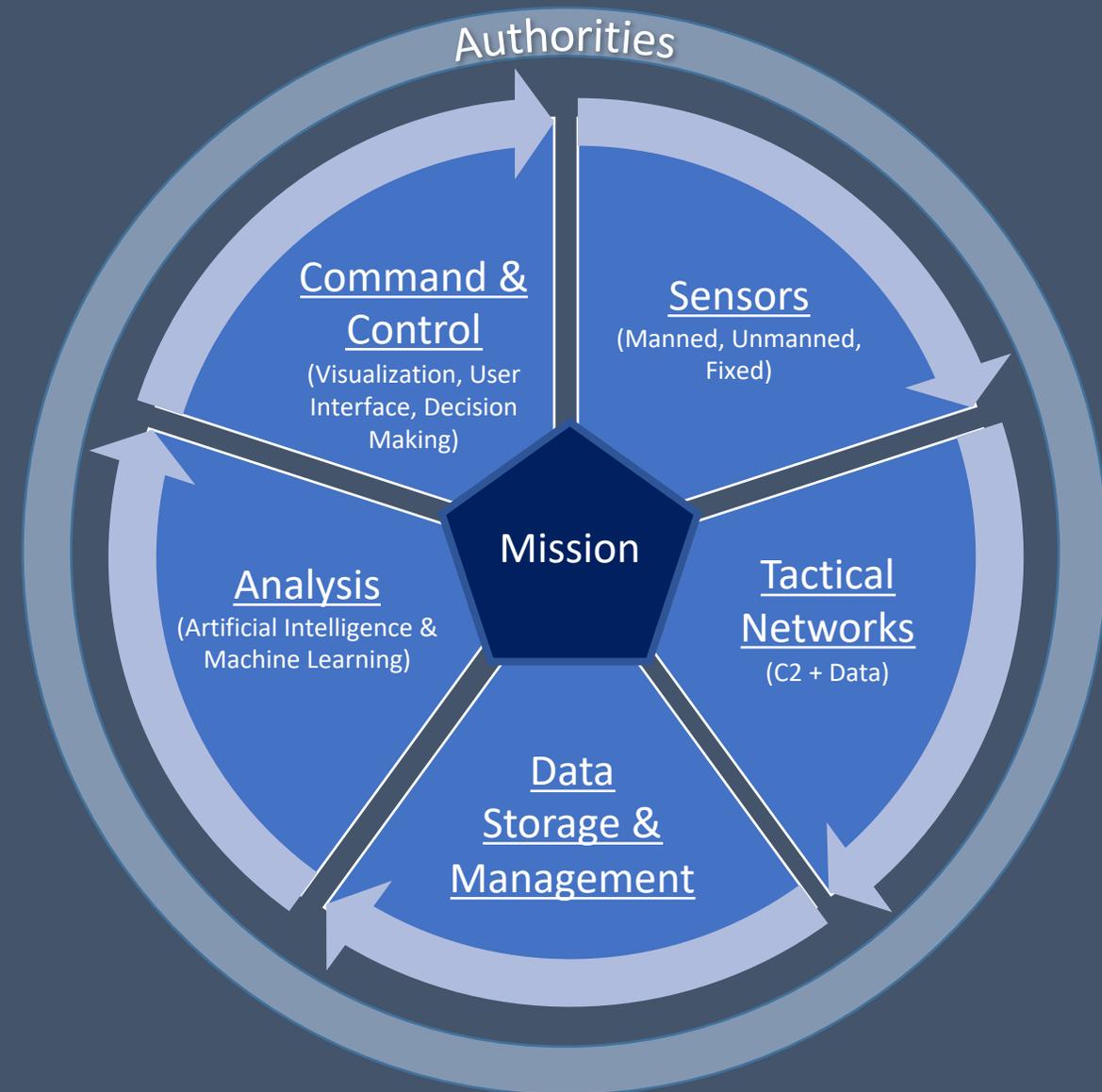
Transition from reacting to tactical sensors to proactively managing mission execution through an ecosystem that yields strategic maritime domain awareness and knowledge-driven operations.



A Future State: More than a Vehicle & Sensor

UxS are more than the “eyes and ears” of our operators.

UxS become sensors that feed a data-driven ecosystem designed to convert data into information, information into knowledge, and enable knowledge-driven decision making to support both operations and mission support.



Possible Use Cases

Homeland Security Missions:

- Drug Interdiction
- Migrant Interdiction
- Ports, Waterways, and Coastal Security
- Defense Readiness
- Other Law Enforcement

Non-Homeland Security Missions:

- Search and Rescue
- Marine Safety
- Aids to Navigation
- Living Marine Resources
- Marine Environmental Protection
- Ice Operations

Mission Support:

- Supply Support Logistics
- Condition-Based Maintenance
- Personnel Readiness



Questions?



Thank You

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